CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.07/KRIDL/CEMENT/2014-15

Date: 10.07.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
AGENCY	:	**Technical Manager**, KRIDL, Bangalore.
NAME OF THE WORK	:	Construction of additional 1st Floor (Ambedkar Bhavan) in Ward No.07, Byatarayanapura, Kodigehalli Sub Division, BBMP, Bangalore.
REFERENCE	:	AEE/KO/(WO)/588/2014-15 Dated: 08.07.2014
SAMPLE ID	:	Cement
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-1989
1	a) Initial Setting Time	IS-4031 (Part -5)	145 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	480 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	26.00 %	-

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Job No.: CTCE/BBMP/W.No.07/KRIDL/SAND/2014-15 : 10.07.2014

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Construction of additional 1st Floor (Ambedkar Bhavan) in Ward No.07, Byatarayanapura, Kodigehalli Sub Division, BBMP, Bangalore.

Reference : AEE/KO/(WO)/588/2014-15 Dated: 08.07.2014

Date of Testing : 10.07.2014

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	95	4.75	4.75	95.3	90-100
2.36	228	11.40	16.15	83.9	75-100
1.18	512	25.60	41.75	58.3	55-90
600 Micron	413	20.65	62.40	37.6	35-59
300 Micron	490	24.50	86.90	13.1	8-30
150 Micron	205	10.25	97.15	2.8	0-10

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Job No.: CTCE/BBMP/W.No.07/KRIDL/AGG/2014-15 : 10.07.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Construction of additional 1st Floor (Ambedkar Bhavan) in Ward No.07, Byatarayanapura, Kodigehalli Sub Division, BBMP, Bangalore.

Reference : AEE/KO/(WO)/588/2014-15 Dated: 08.07.2014

Date of Testing : 10.07.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25700**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	985	3.83	3.83	96.17	95-100
20	15630	60.82	64.65	35.35	30-70
10	6125	23.83	88.48	11.52	10-35
4.75	2480	9.65	98.13	1.87	0-5

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NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.07/KRIDL/STEEL/2014-15 10.07.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager**, KRIDL, Bangalore.
Name of the work	:	Construction of additional 1st Floor (Ambedkar Bhavan) in Ward No.07, Byatarayanapura, Kodigehalli Sub Division, BBMP, Bangalore.
Reference	:	AEE/KO/(WO)/588/2014-15 Dated: 08.07.2014
Date of Test	:	10.07.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	10	0.62	513	552	13.10	O.K	O.K

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Job No.: CTCE/BBMP/W.No.07/KRIDL/CUBE/2014-15 15.08.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	: **Technical Manager,** KRIDL, Bangalore.
Name of the work	: Construction of additional 1st Floor (Ambedkar Bhavan) in Ward No.07, Byatarayanapura, Kodigehalli Sub Division, BBMP, Bangalore.
Reference	: AEE/KO/(WO)/588/2014-15 Dated: 08.07.2014
Sample ID	: Pavement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	18.07.2014	15.08.2014	8.285	483.2	21.48
2	18.07.2014	15.08.2014	8.364	504.8	22.44
3	18.07.2014	15.08.2014	8.479	526.5	23.40

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JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/W.No.07/KRIDL/CC Blocks/2014-15 10.07.2014

TEST REPORT ON CEMENT CONCRETE BLOCKS

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of the Work : Construction of additional 1st Floor (Ambedkar Bhavan) in Ward No. 07, Byatarayanapura, kodigehalli Sub Division, BBMP, Bangalore.

Reference : AEE/KO/(WO)/588/2014-15 Dated: 08.07.2014

Size of Block : 400 x 200 x 200 mm

Cross Sectional Area : 80000 mm^2

Technical Reference : IS: 2185 (Part 1) - 2005

No. of Blocks Tested : 03

Sl.No.	Date of Sampling	Date of testing	Failure load (KN)	Compressive strength	Minimum Compressive Strength of Individual Units
			kN	N/mm^2	N/mm^2
1	08.07.2014	10.07.2014	262.2	3.28	
2	08.07.2014	10.07.2014	265.8	3.32	3.2
3	08.07.2014	10.07.2014	267.4	3.34	

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Job No.: CTCE/BBMP/W.No.07/KRIDL/CUBE/2014-15

25.07.2014

TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of the work : Construction of additional 1st Floor (Ambedkar Bhavan) in Ward No. 07, Byatarayanapura, kodigehalli Sub Division, BBMP, Bangalore.

Reference : AEE/KO/(WO)/588/2014-15 Dated: 08.07.2014

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 7^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	18.07.2014	25.07.2014	8.146	352.6	15.67
2	18.07.2014	25.07.2014	8.254	383.5	17.04
3	18.07.2014	25.07.2014	8.198	368.7	16.39

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Reference : AEE/KO/(WO)/588/2014-15 Dated: 08.07.2014

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 7^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	18.07.2014	25.07.2014	8.195	335.6	14.92
2	18.07.2014	25.07.2014	8.250	352.2	15.65
3	18.07.2014	25.07.2014	8.348	359.2	15.96

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Reference	: AEE/KO/(WO)/588/2014-15 Dated: 08.07.2014
Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 7^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	18.07.2014	25.07.2014	8.095	342.2	15.21
2	18.07.2014	25.07.2014	8.175	350.3	15.57
3	18.07.2014	25.07.2014	8.250	375.6	16.69

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Reference : AEE/KO/(WO)/588/2014-15 Dated: 08.07.2014

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	18.07.2014	15.08.2014	8.167	484.6	21.54
2	18.07.2014	15.08.2014	8.232	503.2	22.36
3	18.07.2014	15.08.2014	8.375	525.8	23.37

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Reference : AEE/KO/(WO)/588/2014-15 Dated: 08.07.2014

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	18.07.2014	15.08.2014	8.153	481.5	21.40
2	18.07.2014	15.08.2014	8.249	512.7	22.79
3	18.07.2014	15.08.2014	8.357	493.5	21.93

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